## **Claims**

Claims 1-11 (Canceled)

- 12. (Previously presented) A sample array for PAS analysis comprising:
- a body having an upper surface and a lower surface;
- at least one affinity mass formed on the upper surface for holding a sample for PAS analysis;
- a reflective coat connected to the lower surface for reflecting light beams that pass through the at least one affinity mass; and
- an acoustic detector positioned to detect and capable of detecting acoustic signals that emanate from the sample in the at least one affinity mass.
- 13. (Original) The sample array of claim 12, wherein an acoustic detector is positioned adjacent each affinity mass to detect acoustic signals that emanate from the adjacent affinity mass.
- 14. (Original) The sample array of claim 12, wherein the acoustic detector is air-coupled to the sample array.

Claims 15-33 (Canceled)

- 34. (Original) A PAS sample array comprising:
- a substrate having an upper surface and a lower surface;
- an array of affinity masses connected to the upper surface of the substrate;
- a reflective plate connected to the lower surface of the substrate; and
- a base plate having an array of acoustic detectors connected thereto, wherein the base plate is positionable beneath the substrate such that each acoustic detector of the array connected to the base plate is positioned below an affinity mass, wherein each acoustic detector can receive acoustic signals emitted from an analyte retained in a respective affinity mass.

Page 2 of 4

LMC:dnr 11/15/04 13104-E 327230 PATENT

Claims 35-51 (Canceled)

Page 3 of 4